# MOUNTAIN AGRICULTURE

**Conducted by Mr. Robert F. Spence, Farm Demonstrator and Special Investigator**

### SCAFFOLD CANE COMMUNITY

Saturday night, June 26, will be a big night for that community. Everybody in the community will gather at the school house and enjoy an hour and a half program of the best sort. The Junior Agricultural Club boys and girls have charge of the first half of the evening. It's not to be known just what they are going to do until Saturday night. There's no way of finding out except to get there early and hold your seat.

The farmers will have charge of the second half of the evening. They won't tell what's up until Saturday night. Let's all go and see and hear for ourselves. Mr. Feltner, an Eastern Kentucky man, will be present and say a few words.

### JUNIOR AGRICULTURAL CLUB MEETING

Saturday afternoon, June 19, a large crowd of club boys and girls met at County Agent Spence's office and discussed their club work and plans for 1920. They recited lessons 1 and 2 from buttetin 54. A report was given by each member present as to his or her crop or animals. Fourteen of those present had their record books up to date, had studied lessons and all letters written and mailed out by County Agent Spence.

Plans for a Club Convention to be held in Berea, were discussed and a committee appointed to see about time and cooperation of Berea College. A second committee was appointed to work out plans for a picnic at Boonesboro some time in July. A vote was taken and carried that no club member would be allowed to attend this all-day picnic unless he or she had lessons up to date and record book complete, so far as crops or animals would allow at the present time.

### TAKE CARE OF SUMMER MILK

The season of sour milk has arrived and it will cost the country a great deal of money between now and frost. Milk sours and the family cannot use it. Milk goes to the cheese factory to sour to make good cheese. In either case, the dairyman loses the price of the milk and the country loses that much good food.

The remedy is ice and steam, say dairy specialists of the U. S. Department of Agriculture. Keep the milk clean and cool. Sterilize all the utensils. If you cannot get ice, use the coldest water available in the tanks in which the cans of milk are kept. If steam is not available, do the best you can with boiling water. See the county agent, or write to the U. S. Department of Agriculture at Washington, of information on how to do it.

### THE MOUNTAINS HEARD FROM

The mountain county agricultural agents will gather in Lexington June 28, 29 and 30 to discuss Mountain Agriculture. They will visit State College of Agriculture and become acquainted with heads of Departments and all experiment and demonstration work thereof.

This is the first time in the history of the State College of Agriculture that mountain county agents have had the opportunity of gathering at the College of Agriculture and discussing real mountain agriculture. We are glad to see a new day beginning for Eastern Kentucky; a day when our mountain farms and farmers are to be benefited directly by our expert service and scientific methods of our College of Agriculture.

### SOME SUGGESTIONS ON CORN GROWING

Corn is capital, and when rightly invested in food for man or beast, returns greater dividends than any other farm crop. Practically one-third of the area of the farm crops, and one-fifth of the improved farm lands of the United States, is devoted to corn. Except in a few localities in the United States, a man's standing in the community as a farmer is rated by his ability and achievements in corn production. It is the greatest and surest source of food on the farm. Increased production is easily secured by increasing the acreage or growing more corn per acre. The latter means is the most economical, when obtained by improved soil or soil conditions, good seed, proper fertilization and cultivation. The greatest increase in yield must be expected from improved soil conditions.

**Selection of the Land**

Ideal soil for corn is a well drained, deep, loose loam, well supplied with decayed organic matter to hold moisture and possible plant food. This soil is seldom found. Corn is being grown on a greater variety of agricultural soils than any other crop. Many of these soils are too poor to grow corn profitably, but should first be built up. This building up can not be permanently or profitably done by the use of commercial fertilizers alone, but when rightly combined with manure and legumes, this insures real, legitimate profit.

After the condition of the soil, water is the determining factor in corn production, 350 to 700 pounds being required to make one pound of dry matter.

**Plowing**

Break corn land eight inches deep. This plowing should be done in the fall or winter, unless a cover crop is grown or the land washes, runs together or is thin; otherwise, plow in the early spring, at a time puddling or clods will not occur. If the land has not been broken to the above depth at some former plowing, increase the depth of plowing gradually, by plowing each time not more than two inches deeper in the fall, and one inch deeper in the spring.

In the spring harrow every half day's plowing, to prevent clods. Fall and winter plowing can be left rough during the winter. Sod lands, unless rolling, inclined to pack or thin, are best plowed in the fall or winter. Disking before plowing conserves moisture and tends to prevent clods.

**The Seed Bed**

No amount of cultivation after planting can make up for neglect preparing the seed bed. Disc and harrow fall plowing at least twice before planting. Spring plowing will need the same treatment, and often more. Mash any clods present with a plank drag. Harrow the land often enough before planting to keep it soft and moist and destroy young weeds.

**Fertilizers**

The kind and quantity varies with soil characteristics and conditions. Stable manure and turned-under legumes stand first in value, and should be the source of nitrogen. Phosphoric acid pays on almost all soils, and potash on many, especially those that are light colored, sandy or thin. Three hundred pounds of 16% acid phosphate and 40 pounds of muriate of potash should give good results. If the potash is not needed, it should not be applied. If soil is deficient in nitrogen and no manure or legumes are used, apply 100 pounds of nitrate of soda broadcast in the row when the corn is 12 or 18 inches high. All fertilizers except nitrate of soda should be applied broadcast and harrowed into the soil when the seed bed is being prepared.

**Seed Corn**

Any pure variety that yields and matures well in the locality should be used. Use only live, tested corn. Nub and tip all ears before shelling, otherwise the seed can not be evenly dropped by the planter. Never import seed corn for the main crop. If new seed is necessary, get it from some neighbor. When starting with a new variety, get only enough for a small plot. If the variety proves successful, seed can be selected for next year's planting.

**Time to Plant**

Plant as soon as the ground is warm enough for prompt germination and not before. Early planting generally gives best results. Aim to finish by May 10th.

Local conditions, such as late seasons, rainfall, cold soils, or the presence of a cover crop, sometimes delay the time of planting.

(Continued Next Week)

## GOOD ROADS INDISPENSABLE

**Highway Improvement Is a Business Proposition With Farmer and City Dweller.**

**When it takes four horses to pull an empty wagon to town and wheat is going off in price each day; when the mail carrier gives up in despair, and the children cannot get to school, the farmer cannot help wondering how much this condition is costing him each day.**

**Figure as he may, he cannot get away from the fact that good roads are indispensable to agricultural prosperity.**

**The city dweller is alike concerned. The farm on a good road has scores of possibilities for the development of its resources to every one open to the farm on a poor road. Increased expenditures—greater buying powers.**

**In the early days of poverty many a county bonded itself for hundreds of thousands of dollars to secure railroads to promote agricultural development. Three-fourths of all the freight the railroads haul must sooner or later move over the public highways, and every ton so moved is costing at an average rate of 23 cents per mile.**

**Verily, road improvement is a business proposition—a matter of dollars and cents.**

**High Speed Steel Without Tungsten.**

**A new high speed steel of British origin is without tungsten in its composition and advantages of both a practical and economical nature are claimed. It is cobalt-molybdenum steel, the cobalt apparently acting as a stabilizer and as correcting certain disadavantages said to exist in molybdenum-tungsten steels. The new steel is claimed to possess the highest point of efficiency ever obtained. The hardening temperature required is only in the neighborhood of 2,000 degrees Fahrenheit. The steel is also reported to machine exceptionally soft and easily. The specific gravity of como steel is reported to be equal to that of the old carbon tool steel, and so 10 per cent less than that of the tungsten high-speed steels. As a result it is estimated that a given weight of como steel will produce 10 per cent more tools than the same weight of regular high-speed steel.**

### CINCINNATI MARKETS.

**Hay and Grain.**

Corn—No. 2 white $2.02@2.04, No. 2 yellow $1.89@1.90, No. 3 yellow $1.88@1.89, No. 2 mixed $1.88@1.89, No. 3 mixed $1.87@1.88, white ear $1.95@2.

Sound Hay—Timothy per ton $30@41, clover mixed $30@39, clover $25@32.

Oats—No. 2 white $1.23@1.23½, No. 3 white $1.22@1.23, No. 2 mixed $1.19½@1.20, No. 3 mixed $1.18@1.19.

Wheat—No. 2 red $2.89@2.90, No. 3 red $2.85@2.87.

**Butter, Eggs and Poultry.**

Butter—Whole milk creamery extras 58c, firsts 53c, seconds 52c, fancy dairy 48c.

Eggs—Extra firsts 39c, firsts 37c ordinary firsts 36c.

Live Poultry—Broilers, 1½ lb and over 60c; fowls, 4½ lbs and over 28c; under 4½ lbs 28c; roosters 16c.

**Live Stock.**

Cattle—Steers, good to choice $13@16, fair to good $10@13, common to fair $6.50@10; heifers, good to choice $13@14, fair to good $10@13, common to fair $5.50@10, canners $4@5, stock steers $7@11, stock heifers $6.50@9.

Calves—Good to choice $13@15, fair to good $10@13, common and large $6@9.

Sheep—Good to choice $7@8, fair to good $4@7, common $2@3, lambs, good to choice $16.50@17, fair to good $14.50@16.50.

Hogs—Selected heavy shippers $15.75@16, good to choice packers and butchers $16, medium $16, common to choice heavy fat sows $8@12.25, light shippers $15@15.25, pigs (110 lbs and less) $9@12.

# HOME DEPARTMENT

**Conducted by Miss Margaret Dizney, Director of Home Science**

### FEEDING THE CHILD
**By C. Houston Goudiss**

(Continued From Last Week)

Sugar is the most concentrated of all forms of food energy. It is transformed into heat in the body more quickly than any other food. Most experts in child diet agree that we feed too much free sugar to children of this age.

Dr. Alfred C. Fones, of Bridgeport, Connecticut, who has led the entire nation by installing a system for caring for the teeth of the school children in that city, is authority for the statement that there should be no free sugar in the diet of the child from birth to fifteen years of age.

By free sugar is meant sugar as we ordinarily know it. He would have the child rely on the natural sugars in fruit and milk and on the sugar made by their bodies from the intake of starchy foods, such as bread, potatoes and cereals. After careful investigation, he points out that the taste for sugar is developed in children by feeding them sweetened foods and that often the sugar takes the place of the more wholesome foods.

The sugar consumption is so excessive, he says, that the liver is overloaded with glycogen, and that eaten in the form of sweetened foods or candy, ferments on the teeth. It also causes disease in the teeth by action of osmosis, which carries the sugar through the enamel into the tooth structure. The bacteria which cause tooth decay live and multiply best in a sugar solution, so that the argument seems reasonable.

Other doctors point out that the craving for sweets is not natural in children, but is a taste that is artificially developed. An additional danger of feeding too much sugar lies in the fact that the child gets its energy from the sugar intake and, therefore will not eat heartily of other foods which contain protein for muscle building and mineral salts for bone structure and body regulation.

Sugar is concentrated energy, and therefore is the best appetite reducing food known. But remember it only furnishes energy. It does not build bone or muscle. It cannot be relied upon to nourish growing bodies.

If it is desired to give children free sugar, honey furnishes this in delightful form and is more easily assimilated than cane sugar. If you let them have candy, give it to them yourself. Make sure they do not get it in some corner store where it is apt to be colored with injurious dyes and do not let them eat candy between meals. And keep on emphasizing honey!

If the child's needs seem to indicate more food than three ordinary meals provide, a glass of milk with some crackers or even sweetened cakes or a piece of fruit between meals is far better than candy. Sweetened chocolate, eaten with whole wheat crackers, is a good answer to the child's craving for sweets, because it contains fats and other elements of food value in addition to its sugar content. A "sweet tooth" can be developed by faulty diet and can be kept under control by proper attention to diet.

Another class of foods that should be relied upon for bowel regulation are the green "leaf" vegetables, such as lettuce, celery spinach, etc. There was a time when these agreeable edibles were generally looked upon as lacking in food value, because they did not contain enough energy-fuel units. But we have discovered they are important sources of vitamines as well as of mineral salts such as iron, all of which are needed to keep little bodies vigorous and able to resist disease.

The iron and mineral salts found in vegetables are Nature's ideal form of these vital elements for assimilation by little bodies. They will be easily taken into the system, whereas the forms furnished by the drug store often are eliminated practically as taken in. These "leaf" vegetables are also bulk foods which supply little bodies with insoluble cellulose—the main source of the mass of matter needed by the intestines to facilitate the elimination of waste and keep the bowels moving regularly.

Vegetables should always be eaten with the water in which they are cooked, so as to utilize the valuable mineral salts, which are soluble in water and are lost entirely if the water is discarded.

"What about meat for my five-year-old?" asks many a mother.

If carefully cooked and served without a surplus of fat, beef, lamb and mutton are good foods for the growing child, when served once a day and in moderate quantity. Pork should be eliminated from the menu. Chicken and fish are also excellent variants. But the more milk the child drinks the less need there will be for meat. And under no circumstances should meat be included in the evening meal. Eggs can be served and meat broths, too, provided they are not given more than once a day.

As to bread, it is part of wisdom to emphasize the whole wheat and graham kinds in the diet, especially when made at home from unbolted flour. And hot breads should be avoided, for they form a hard lump of dough in the little stomach.

Cereals, of course, constitute one of the mainstays in all child feeding, and if adults ate more of them it would be better. Here, also, the value of the dish is dependent on its proper preparation, thorough cooking being of the highest importance.

In this connection, let me say a few words for the old-fashioned oat-meal—the kind that has made the Scotch the tallest and sturdiest people on earth. When eaten with cream or rich milk, it constitutes almost a perfect diet for the child. There seems to be a virtue in this good old dish that is not approached by any other cereal.

During the summer, ready-prepared cereal foods are excellent, because the child is not apt to take enough of the hot kinds. Many are already steam cooked and scientifically prepared, ready to be digested easily by the little child stomach with little or no cooking.

In all a child eats, thorough chewing should be insisted upon. This is a matter of the utmost importance, and one the mother will find hard to teach.

The nature of the child is to eat fast and swallow things whole. Robust appetites lead to this. The uneducated palate is not so particular about flavors as the educated one will be a few years later. So there will be imperfect mastication unless the child is taught how important it is that all food should be chewed over and over again before it is swallowed.

Don't forget in leading your child along the road of proper food which will land him in the City of Good Health, that water is food.

Not ice water or ice-cold water, but cool, pure water. It is well to foster the habit of drinking a glass immediately on arising and just before going to bed, and to see that at least one glass is drunk between meals. If the proper amount of milk is drunk at meals, there will be little desire for water while eating. But if the child insists on drinking at meals, do not let him have more than one glass of water and see that this is swallowed in small sips and not gulped down. See also that the child does not take a drink with his mouth full of food. Such a practice leads to swallowing the food before it is thoroughly mixed with the saliva needed to aid the process of digestion. Insist that all food be swallowed before any water is taken.

I have said very little about fats in this article, for the reason that not many children get too much fat. By "not many," I mean that only the rich children get too much fat. Science has demonstrated that children of this age who get too much butter or cream or the fats of meats suffer just as much from malnutrition as those who do not get enough. We have discovered that such children actually suffer from lime starvation, although they may get plenty of lime in milk. But the delicate digestive apparatus of the child is upset by the great fat intake and is not able to properly absorb the other and much-needed elements of the diet. It is possible for children of this age to be overfed as well as underfed.

All I have said thus far concerning the proper food for the kindergarten age is based on fairly normal health and bodies. The average well child is not "well" however, unless his or her weight is in keeping with height; unless sleep is sound and of at least ten hours' duration each night; unless play is attended with enthusiasm and outdoor exercise welcomed with joy; unless fits of temper are infrequent and laughter and happiness almost constant.

If your child is subnormal in any way, or if there exists any physical defect or special weakness, it is the part of wisdom to consult some reputable doctor as to the needed diet. If the foods ordinarily assimilated by the average child seem to disagree with yours, accept this as a warning from Nature that something is not as it should be, and seek the best advice within your reach. For to give a child good health through right food is better than to leave it a million dollars when you die!

Do not approach this ministry of feeding as a "task," but rather as a privilege.

For it is the surest and largest way you can contribute to the welfare and prosperity, not only to your own child or children, but of the future. It is your first duty to the state to see that your child is physically fit.

Look at you five-year-old not as a lovable little being, to be indulged for the sake of passing satisfaction, but as a piece of building material, which, within a few years, will be called to complete the structure of civilization. And think of yourself, not as a mother who enjoys having put something pleasant into a little life so dependent upon her, but as a guardian of years yet unborn, whose use and meaning to all mankind shall be based somewhat upon the knowledge and care you now put into the feeding of this future citizen.

## BETTER SCHOOL ADVANTAGES

**Average of School Year Is 180 Days in Five States Having Best Road Systems.**

**Good roads make it possible to have better school advantages. In the five states of the Union which have the best system of public highways the average length of school year is 180 days. In the five states that have given the least attention to road improvements the school year is less than half that long.**